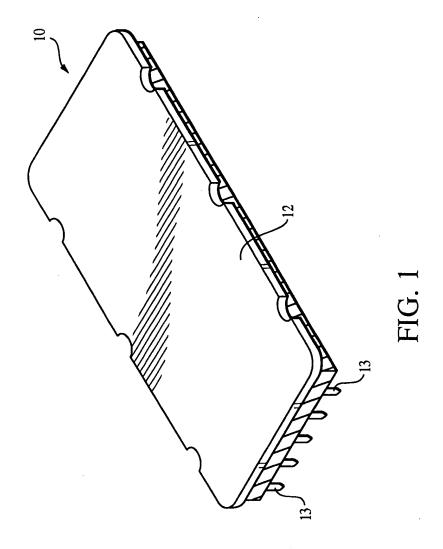
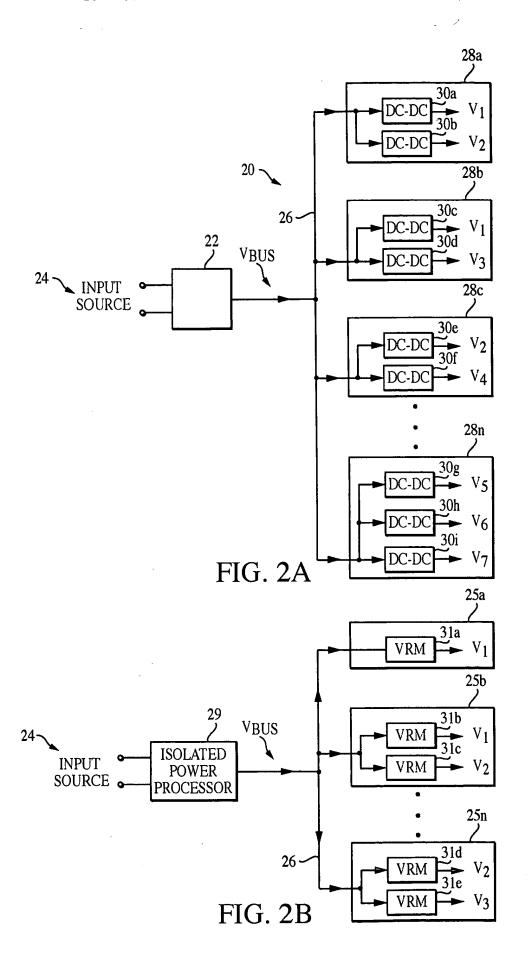
Matter No.: 00614-136003 Page 1 of Applicant(s): Patrizio Vinciarelli LOW-LOSS TRANSFORMER-COUPLED GATE DRIVER

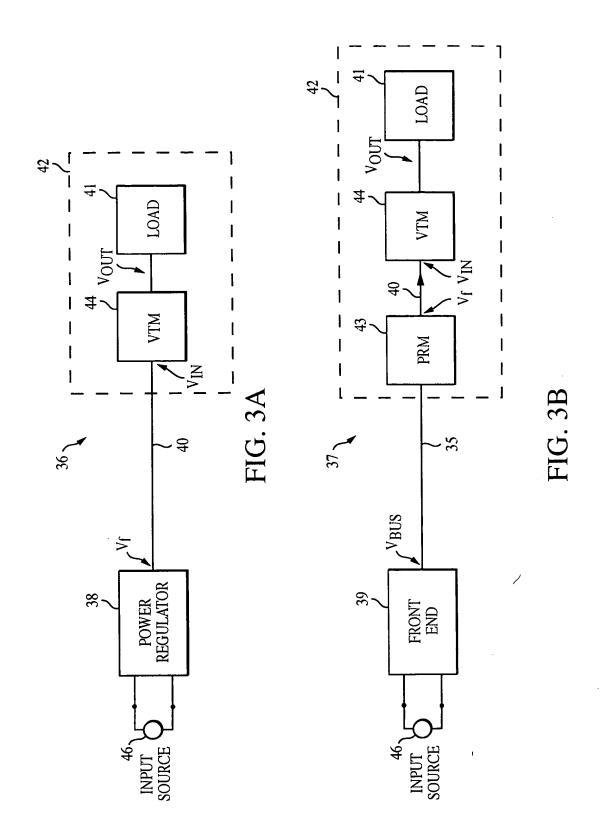


Matter No.: 00614-136003 Applicant(s): Patrizio Vinciarelli

LOW-LOSS TRANSFORMER-COUPLED GATE DRIVER

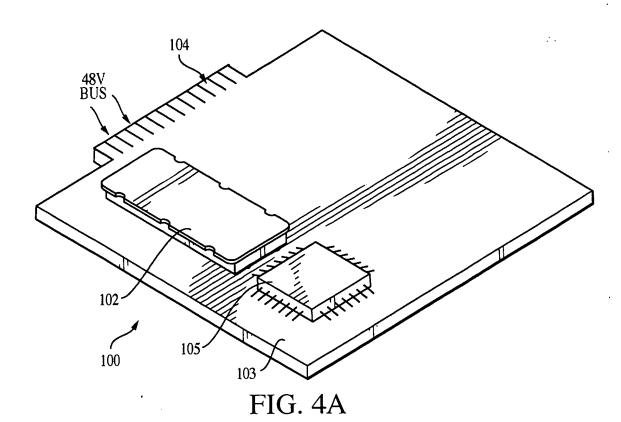


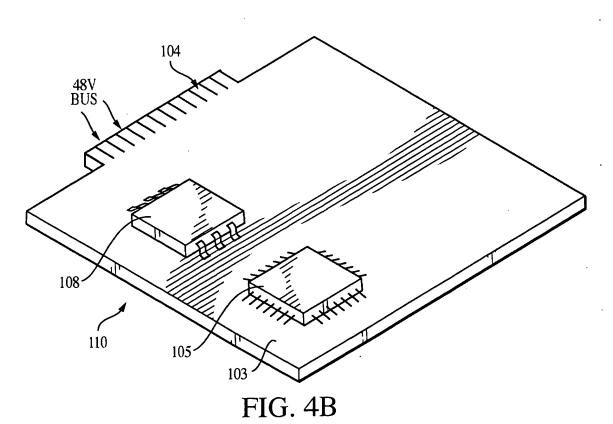
Matter No.: 00614-136003 Page 3
Applicant(s): Patrizio Vinciarelli
LOW-LOSS TRANSFORMER-COUPLED GATE DRIVER



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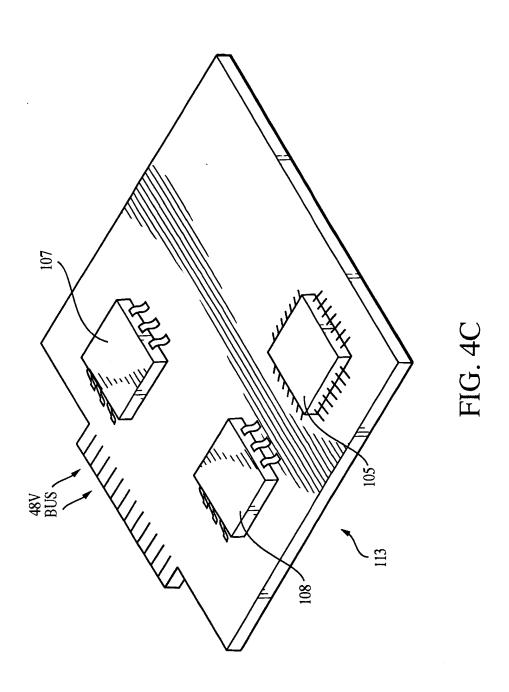
Matter No.: 00614-136003 Page 4
Applicant(s): Patrizio Vinciarelli
LOW-LOSS TRANSFORMER-COUPLED GATE DRIVER





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Matter No.: 00614-136003 Page 5 of Applicant(s): Patrizio Vinciarelli LOW-LOSS TRANSFORMER-COUPLED GATE DRIVER



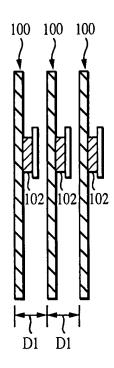


FIG. 5A

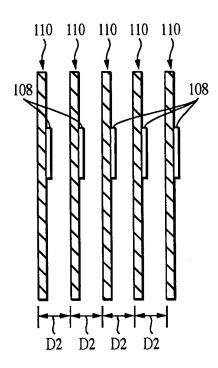


FIG. 5B

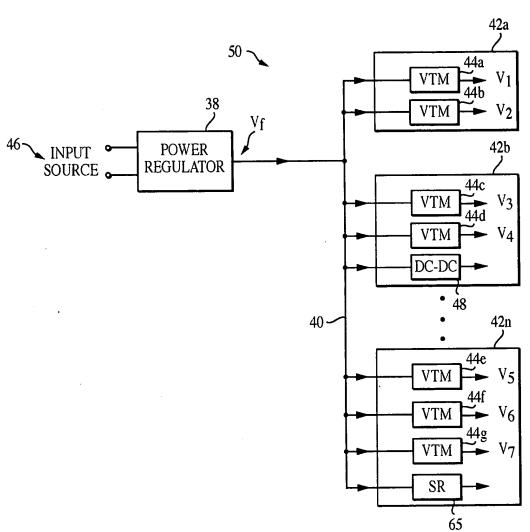


FIG. 6

Matter No.: 00614-136003

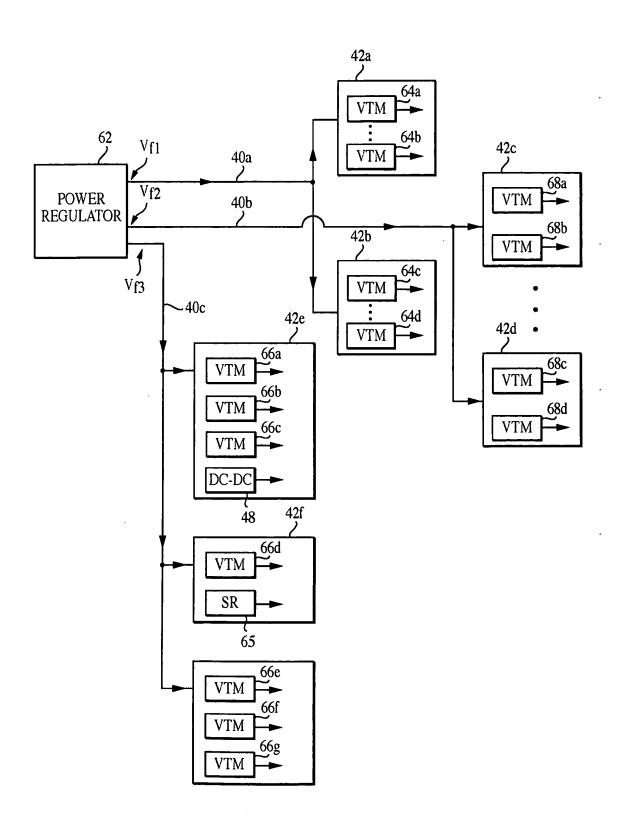
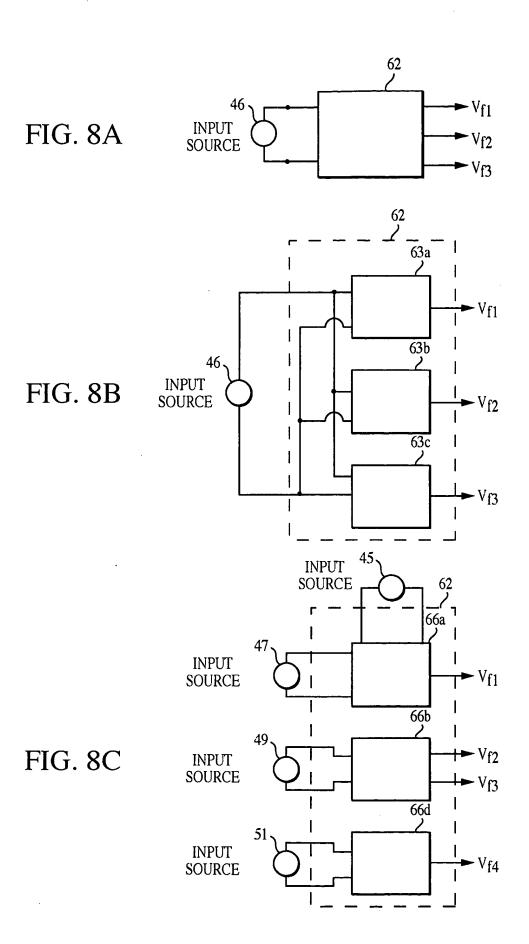


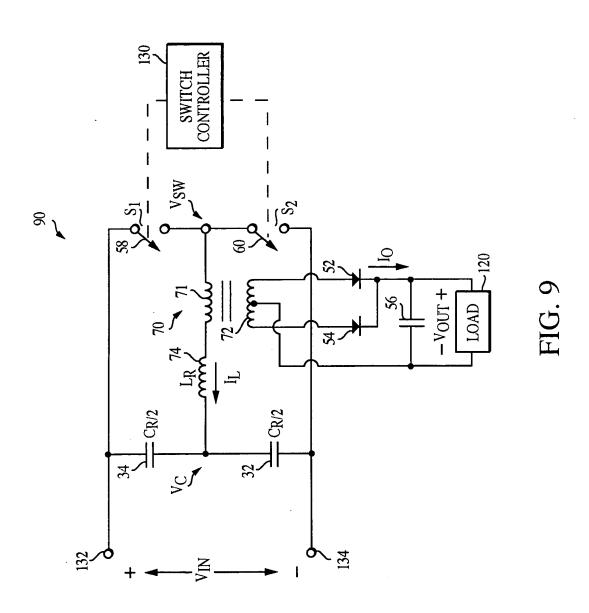
FIG. 7

Applicant(s): Patrizio Vinciarelli

LOW-LOSS TRANSFORMER-COUPLED GATE DRIVER

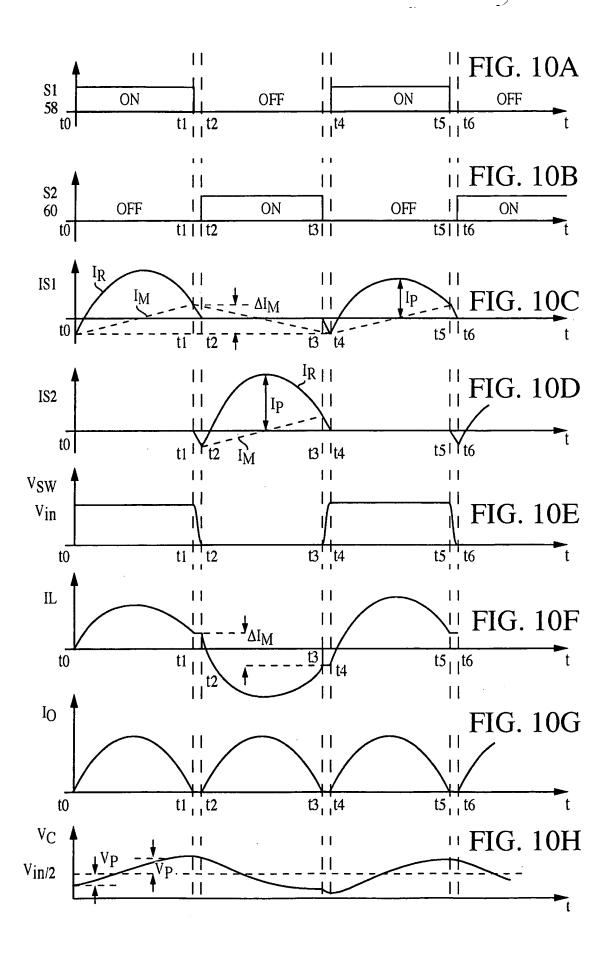


Matter No.: 00614-136003 Page 10 Applicant(s): Patrizio Vinciarelli LOW-LOSS TRANSFORMER-COUPLED GATE DRIVER



Matter No.: 00614-136003 Applicant(s): Patrizio Vinciarelli

LOW-LOSS TRANSFORMER-COUPLED GATE DRIVER



Matter No.: 00614-136003 Page 12 Applicant(s): Patrizio Vinciarelli LOW-LOSS TRANSFORMER-COUPLED GATE DRIVER

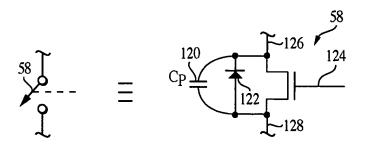


FIG. 11

LOW-LOSS TRANSFORMER-COUPLED GATE DRIVER

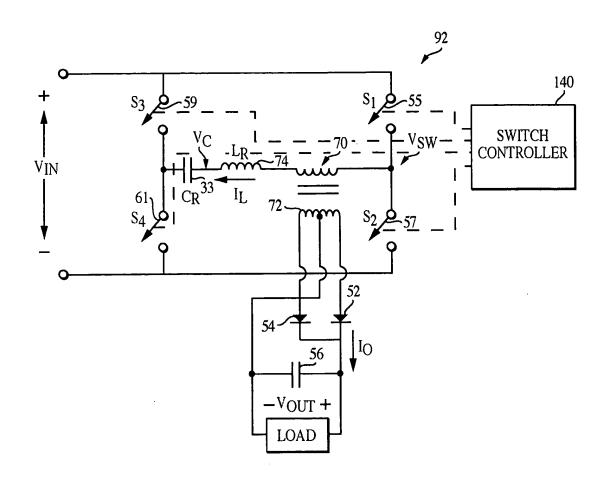


FIG. 12

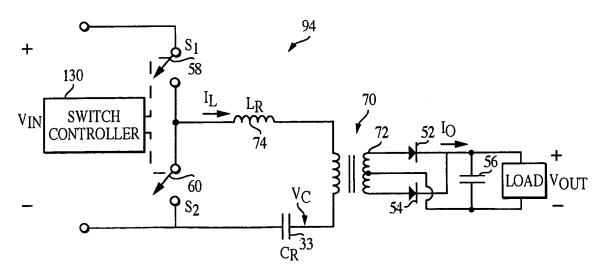


FIG. 13

Matter No.: 00614-136003 Page 14 Applicant(s): Patrizio Vinciarelli LOW-LOSS TRANSFORMER-COUPLED GATE DRIVER Page 14 of 59

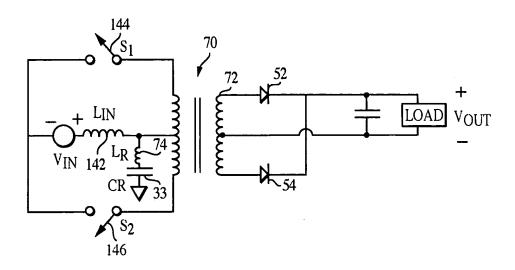


FIG. 14

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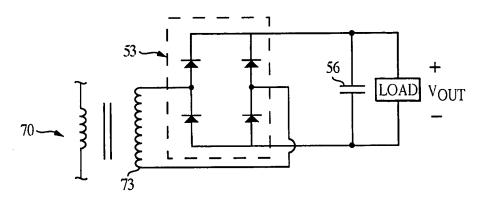


FIG. 15A

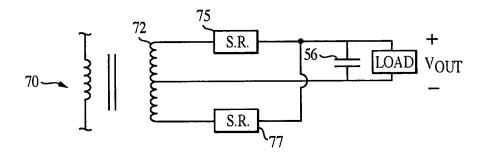
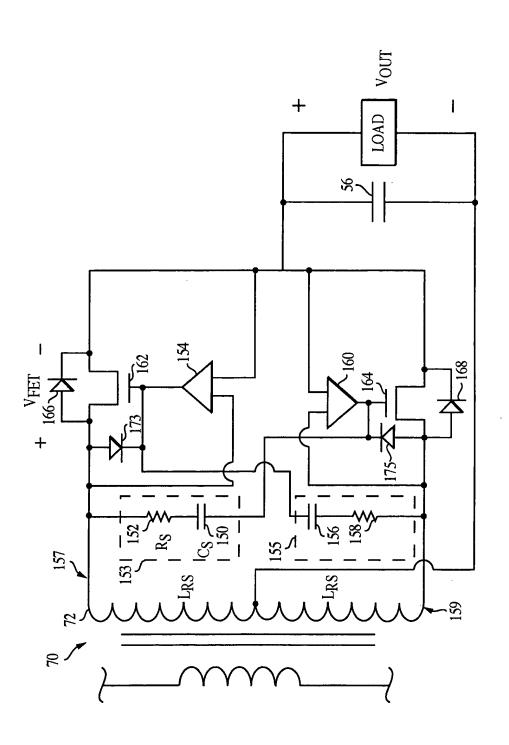
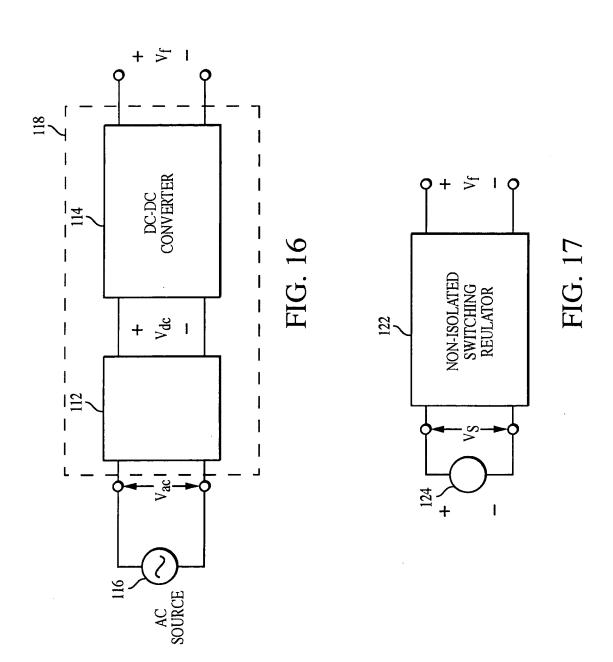


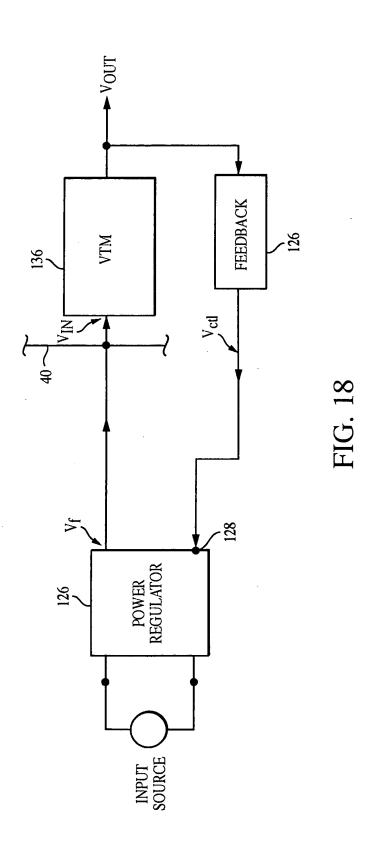
FIG. 15B

Matter No.: 00614-136003 Page 16 Applicant(s): Patrizio Vinciarelli LOW-LOSS TRANSFORMER-COUPLED GATE DRIVER

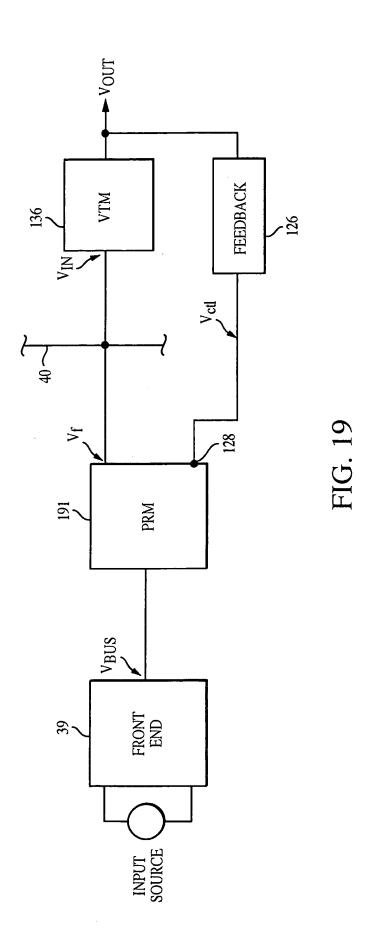


Matter No.: 00614-136003 Page 17 Applicant(s): Patrizio Vinciarelli LOW-LOSS TRANSFORMER-COUPLED GATE DRIVER

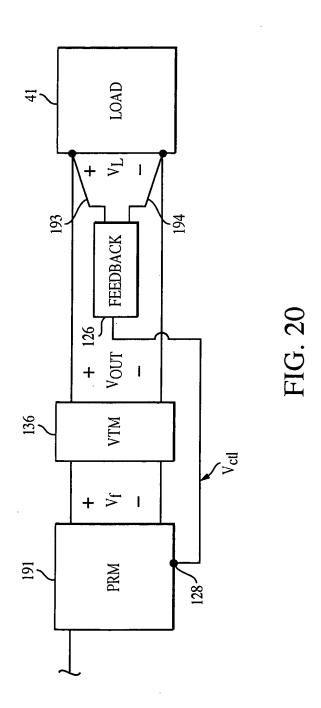




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Matter No.: 00614-136003 Page 21 of Applicant(s): Patrizio Vinciarelli LOW-LOSS TRANSFORMER-COUPLED GATE DRIVER

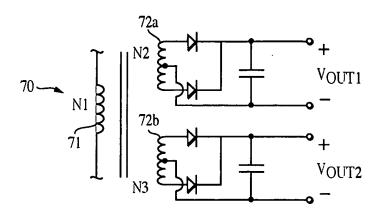
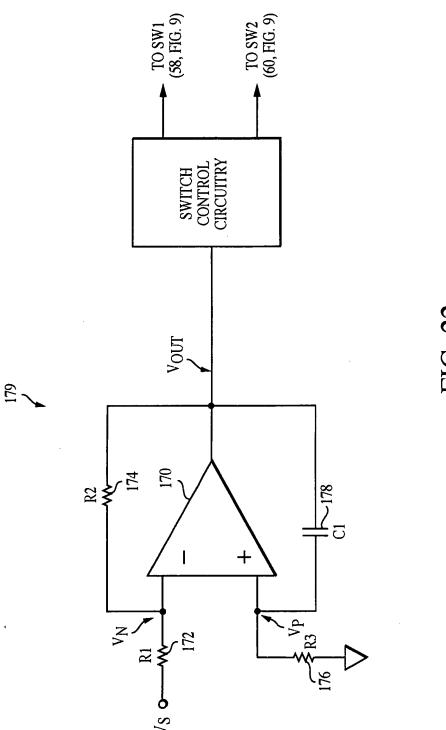
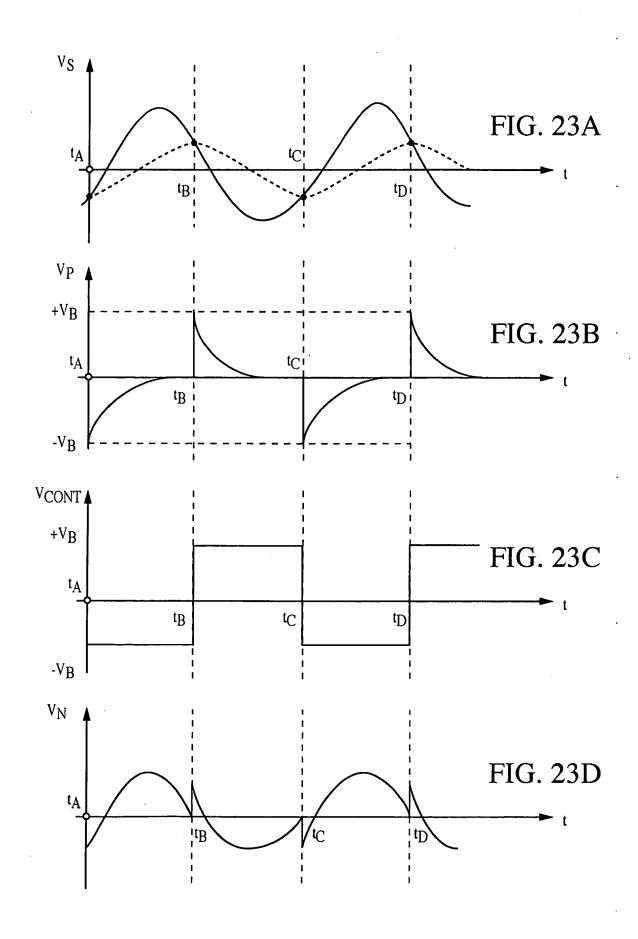


FIG. 21

Matter No.: 00614-136003 Page 22 Applicant(s): Patrizio Vinciarelli LOW-LOSS TRANSFORMER-COUPLED GATE DRIVER



Matter No.: 00614-136003



Matter No.: 00614-136003 Page 24 Applicant(s): Patrizio Vinciarelli LOW-LOSS TRANSFORMER-COUPLED GATE DRIVER

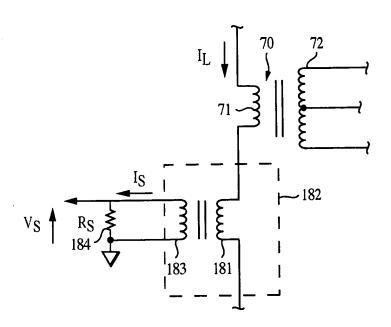
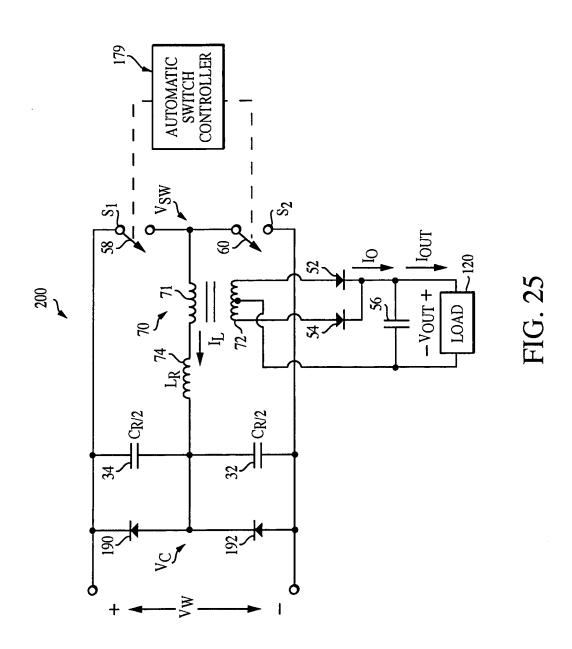


FIG. 24

Matter No.: 00614-136003 Page 25 Applicant(s): Patrizio Vinciarelli LOW-LOSS TRANSFORMER-COUPLED GATE DRIVER



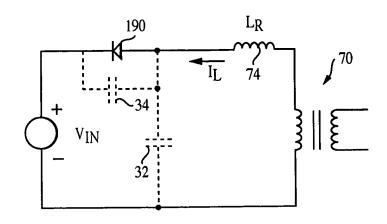
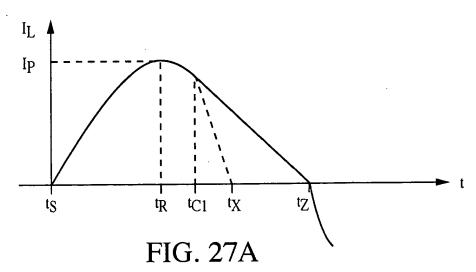


FIG. 26



 v_{C} Iw tC1 $t_{\mathbb{Z}}$ ts $t_{\boldsymbol{X}}$

FIG. 27B

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Matter No.: 00614-136003 Page 27 of Applicant(s): Patrizio Vinciarelli LOW-LOSS TRANSFORMER-COUPLED GATE DRIVER

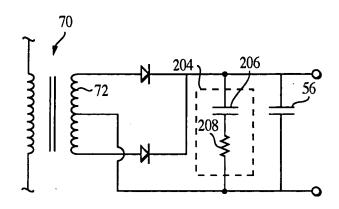


FIG. 28

Matter No.: 00614-136003

Applicant(s): Patrizio Vinciarelli LOW-LOSS TRANSFORMER-COUPLED GATE DRIVER

BUCK REGULATED SINE AMPLITUDE CONVERTER

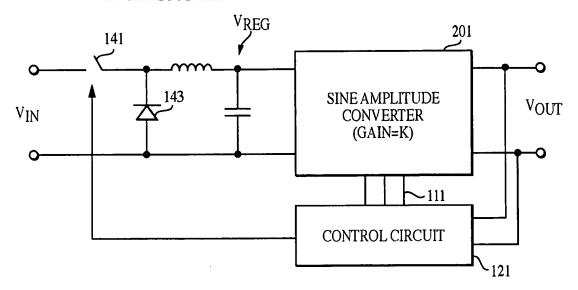


FIG. 29A

BOOST REGULATED SINE AMPLITUDE CONVERTER

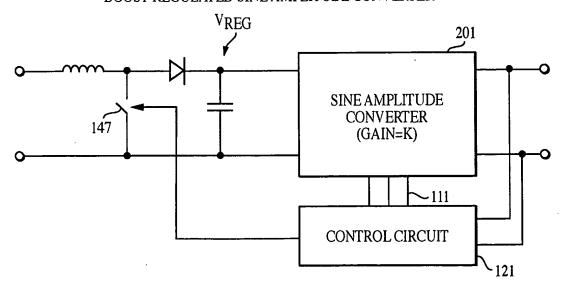
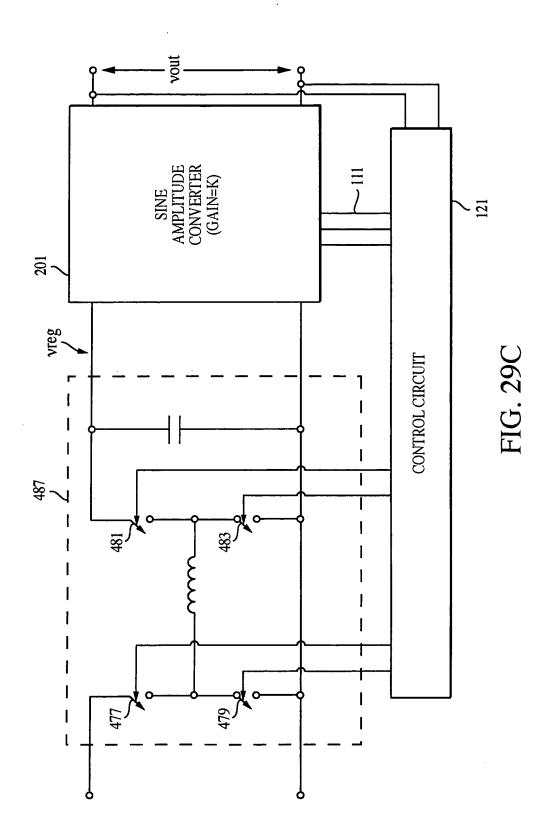


FIG. 29B

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Matter No.: 00614-136003 Page 29 Applicant(s): Patrizio Vinciarelli LOW-LOSS TRANSFORMER-COUPLED GATE DRIVER



Applicant(s): Patrizio Vinciarelli LOW-LOSS TRANSFORMER-COUPLED GATE DRIVER

BOOT STRAP REGULATED DC-DC CONVERTER

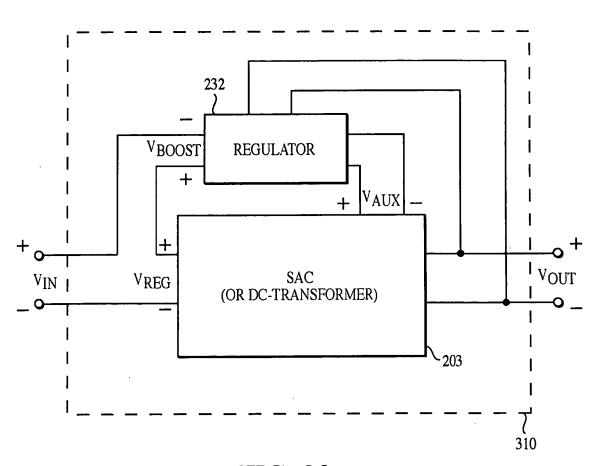


FIG. 30

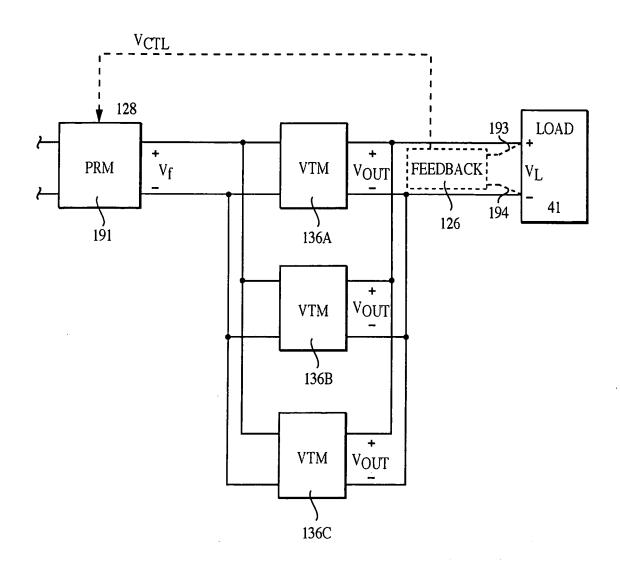
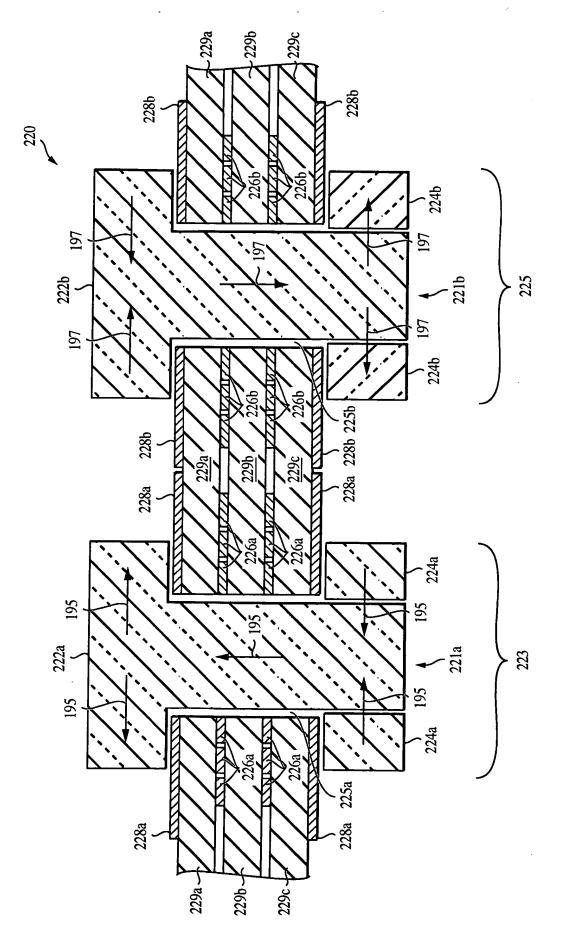


FIG. 31

Matter No.: 00614-136003 Page 32 Applicant(s): Patrizio Vinciarelli LOW-LOSS TRANSFORMER-COUPLED GATE DRIVER



Matter No.: 00614-136003 Page 33 Applicant(s): Patrizio Vinciarelli LOW-LOSS TRANSFORMER-COUPLED GATE DRIVER

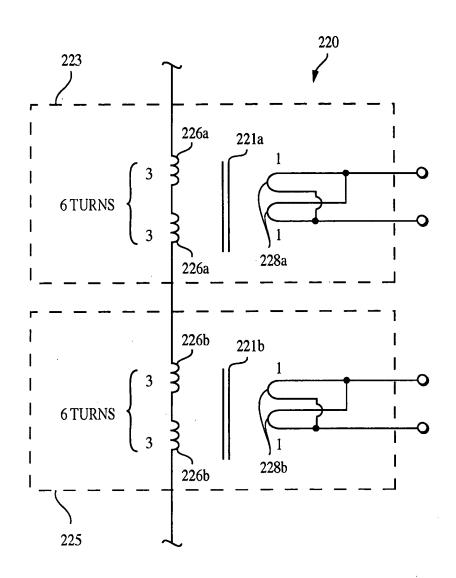
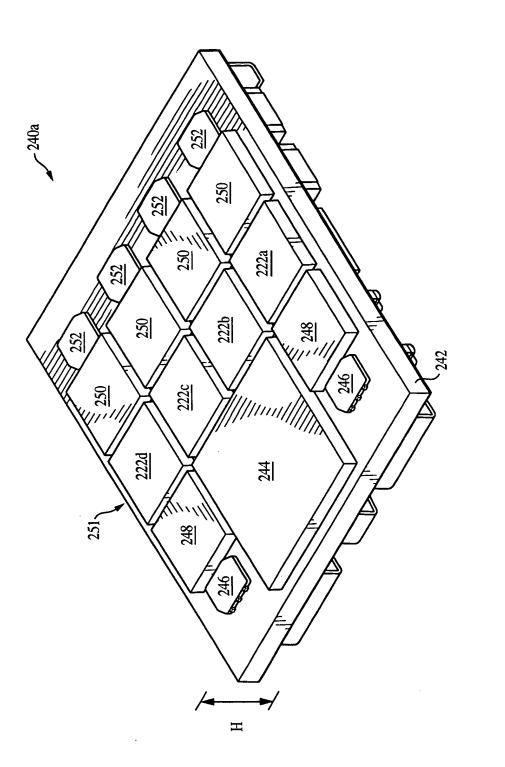
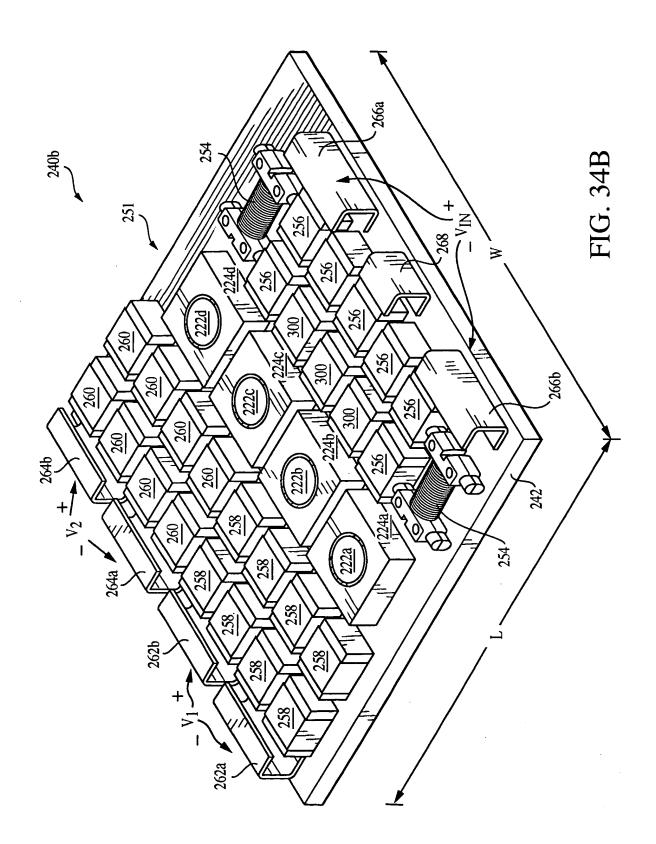


FIG. 33

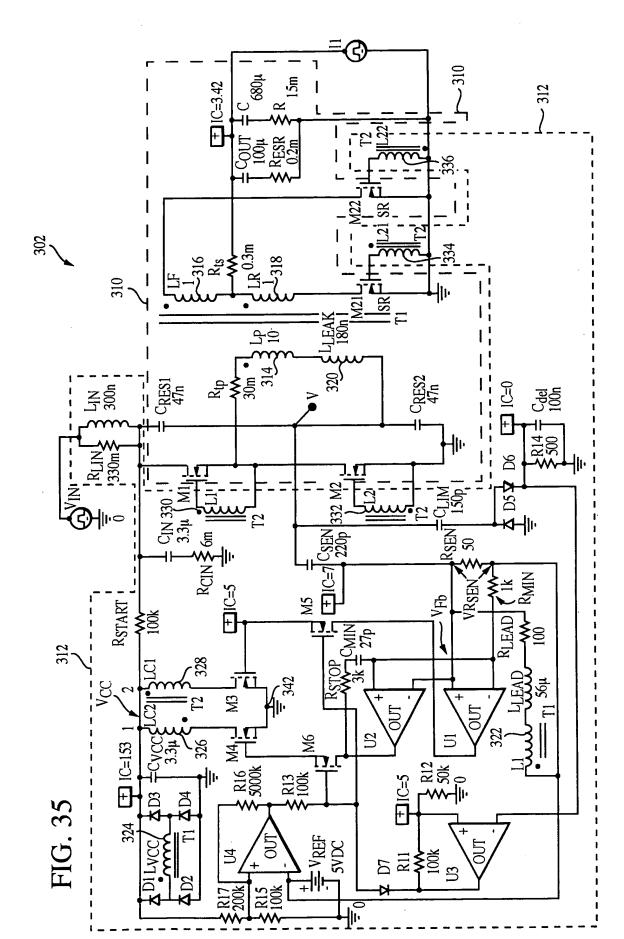
Matter No.: 00614-136003 Page 34 Applicant(s): Patrizio Vinciarelli LOW-LOSS TRANSFORMER-COUPLED GATE DRIVER



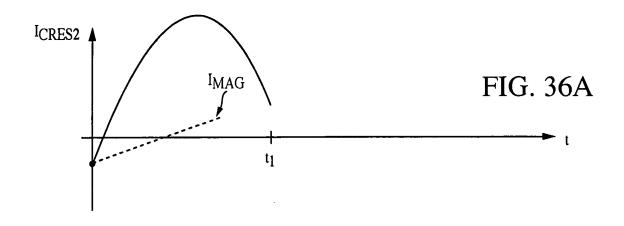
Matter No.: 00614-136003 Page 35 Applicant(s): Patrizio Vinciarelli LOW-LOSS TRANSFORMER-COUPLED GATE DRIVER

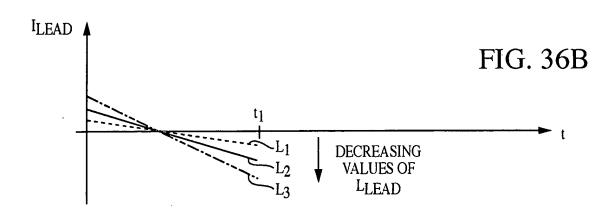


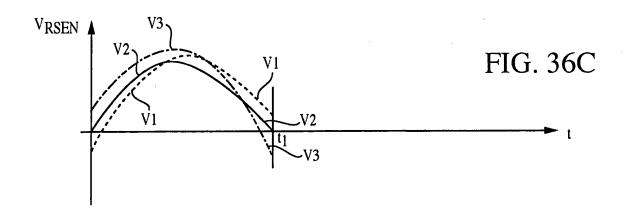
Matter No.: 00614-136003



Matter No.: 00614-136003 Page 37 Applicant(s): Patrizio Vinciarelli LOW-LOSS TRANSFORMER-COUPLED GATE DRIVER

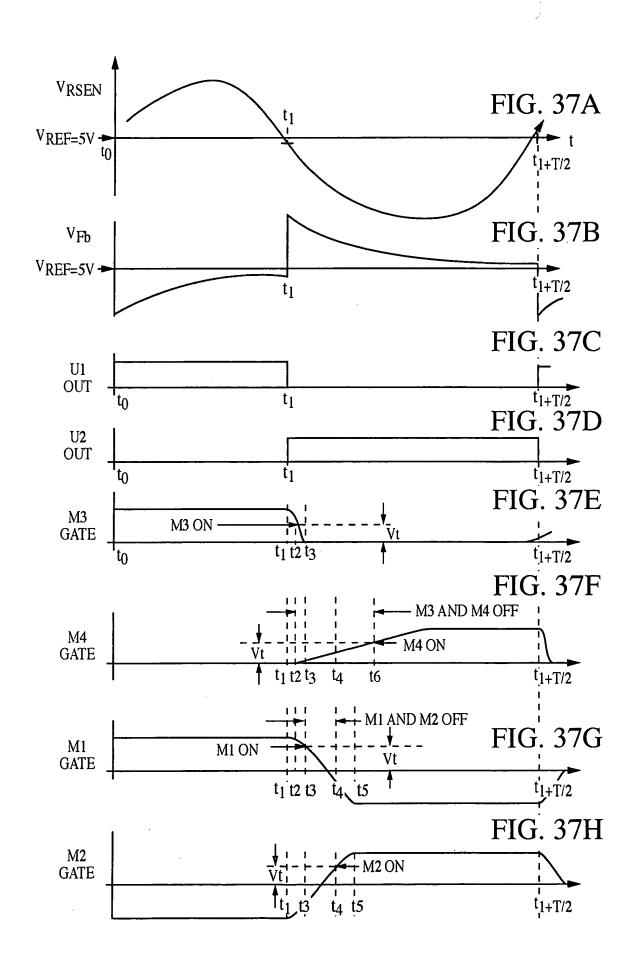






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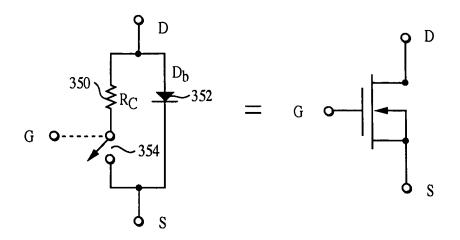


FIG. 38

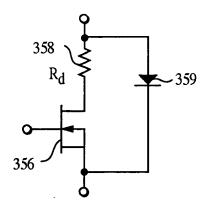


FIG. 39A

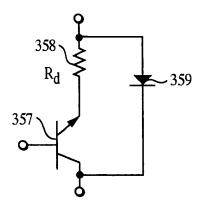
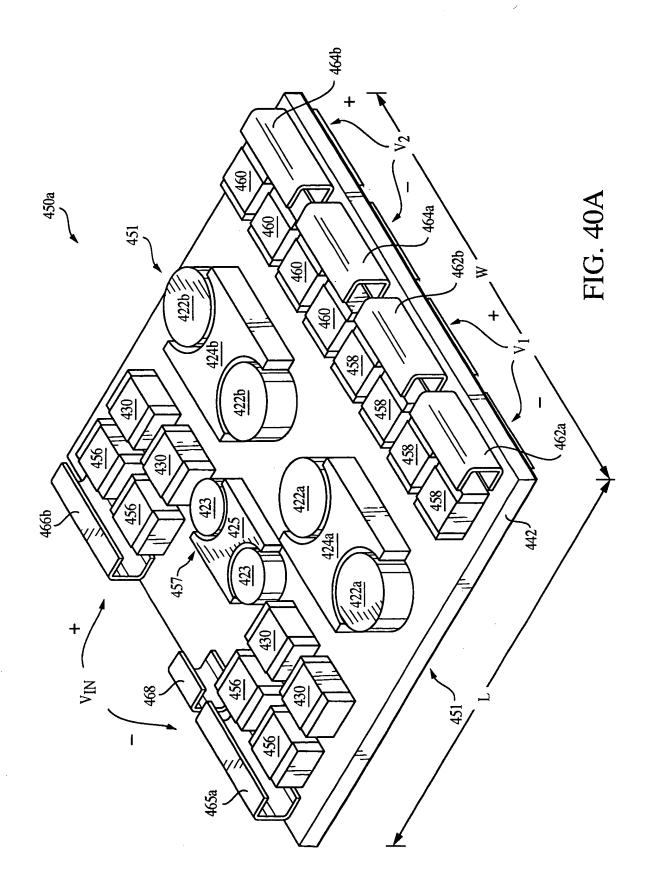
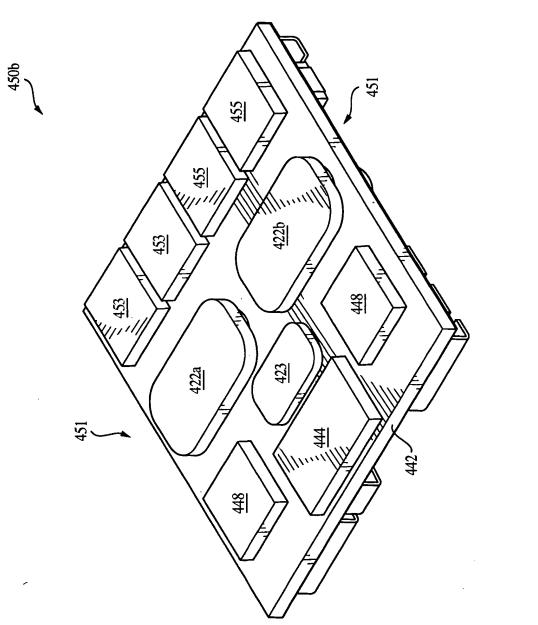


FIG. 39B

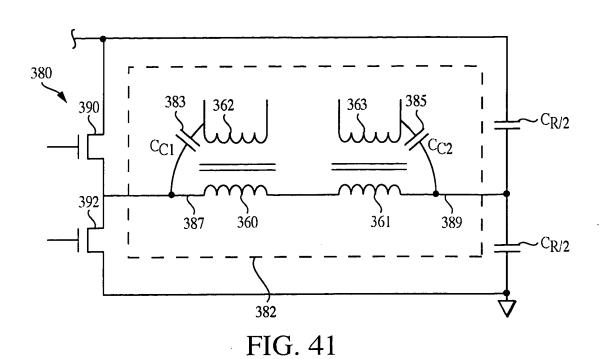
Matter No.: 00614-136003 Page 40 Applicant(s): Patrizio Vinciarelli LOW-LOSS TRANSFORMER-COUPLED GATE DRIVER



Matter No.: 00614-136003 Page 41
Applicant(s): Patrizio Vinciarelli
LOW-LOSS TRANSFORMER-COUPLED GATE DRIVER



Matter No.: 00614-136003 Page 42
Applicant(s): Patrizio Vinciarelli
LOW-LOSS TRANSFORMER-COUPLED GATE DRIVER



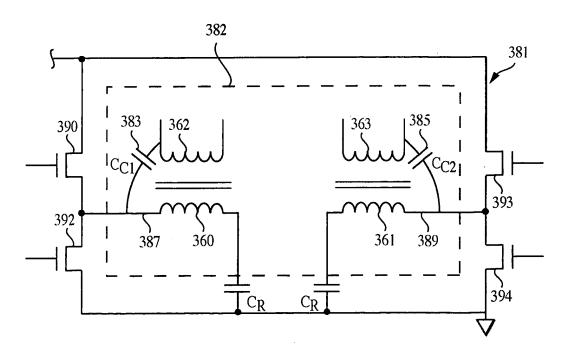


FIG. 42

Matter No.: 00614-136003

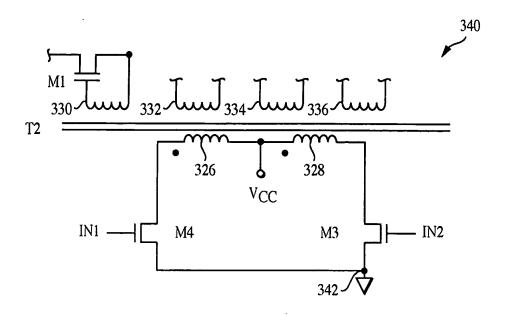


FIG. 43

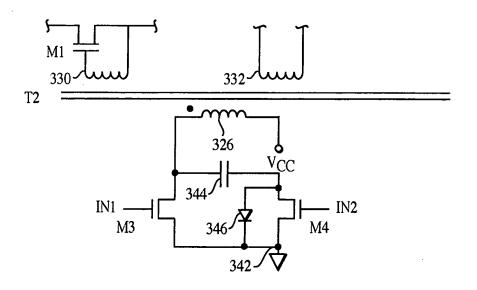


FIG. 44

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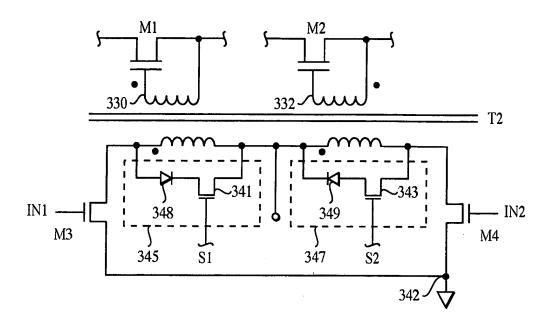
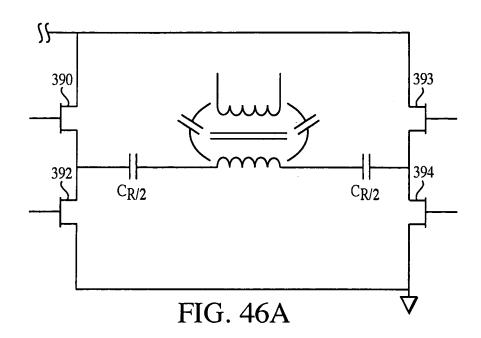
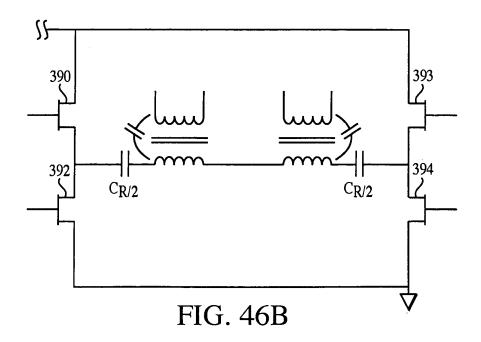


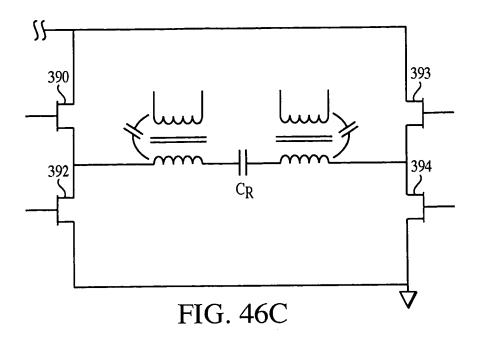
FIG. 45





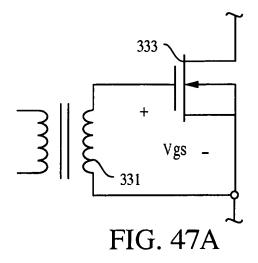
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Matter No.: 00614-136003 Page 46 Applicant(s): Patrizio Vinciarelli LOW-LOSS TRANSFORMER-COUPLED GATE DRIVER



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Matter No.: 00614-136003 Page 47 Applicant(s): Patrizio Vinciarelli LOW-LOSS TRANSFORMER-COUPLED GATE DRIVER



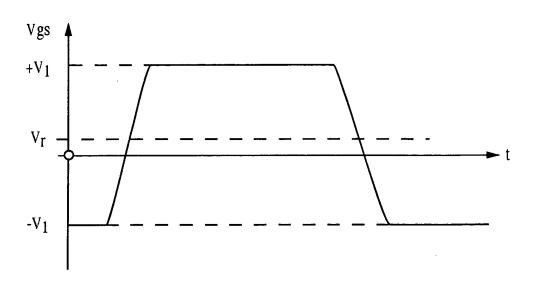


FIG. 47B

Matter No.: 00614-136003 Page 48 Applicant(s): Patrizio Vinciarelli
LOW-LOSS TRANSFORMER-COUPLED GATE DRIVER

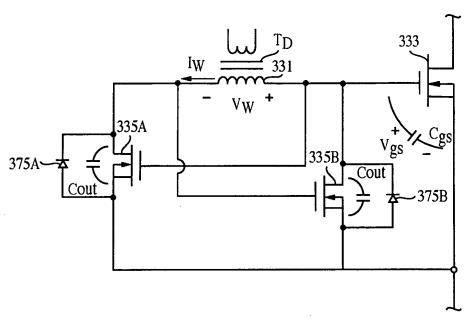
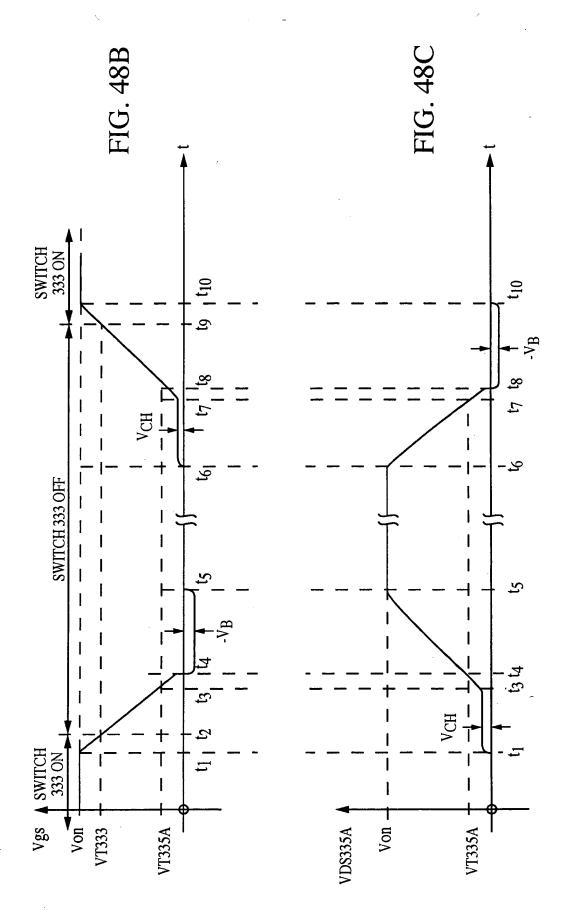


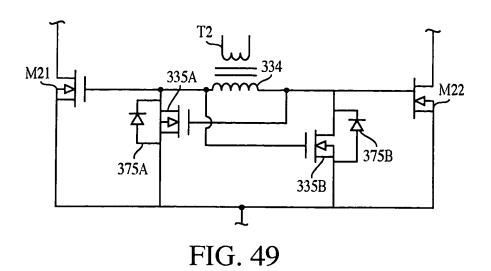
FIG. 48A

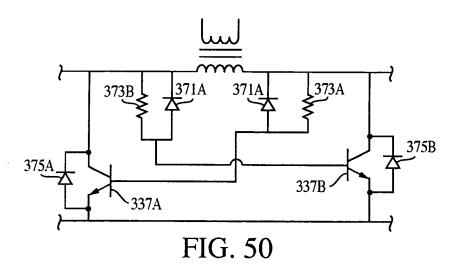
Matter No.: 00614-136003 Page 49 Applicant(s): Patrizio Vinciarelli
LOW-LOSS TRANSFORMER-COUPLED GATE DRIVER



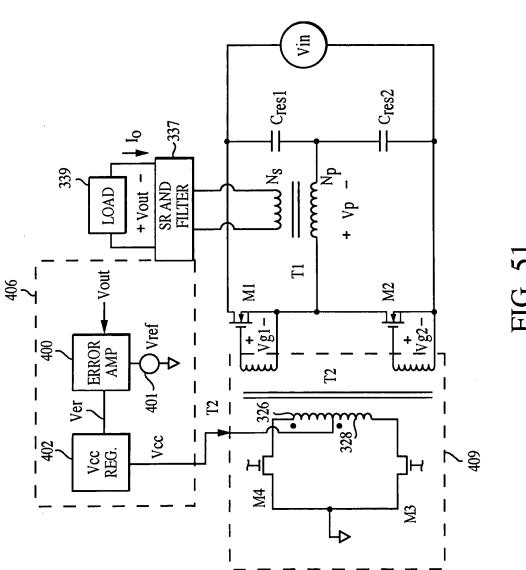
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Matter No.: 00614-136003 Page 50 a Applicant(s): Patrizio Vinciarelli LOW-LOSS TRANSFORMER-COUPLED GATE DRIVER

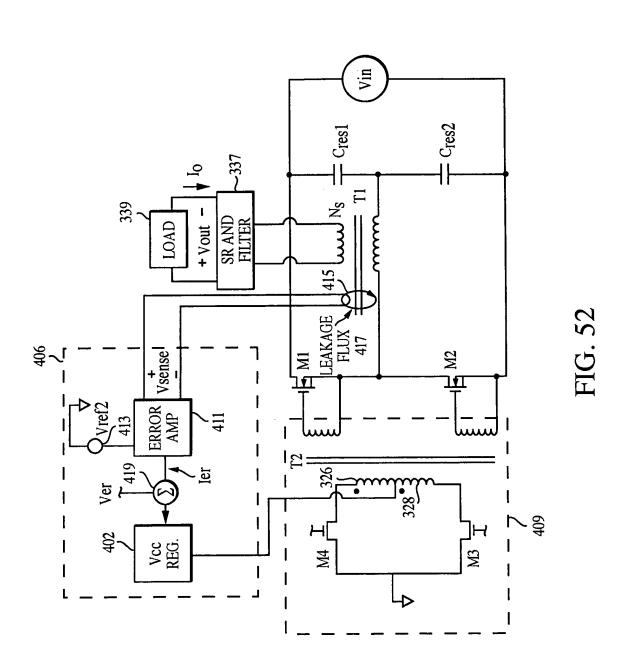




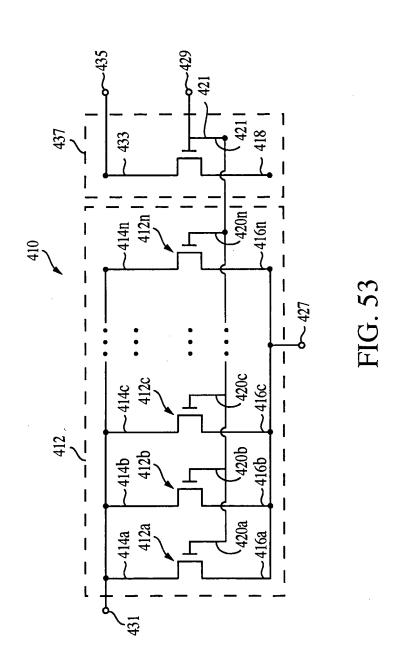
Matter No.: 00614-136003 Page 51 of Applicant(s): Patrizio Vinciarelli LOW-LOSS TRANSFORMER-COUPLED GATE DRIVER



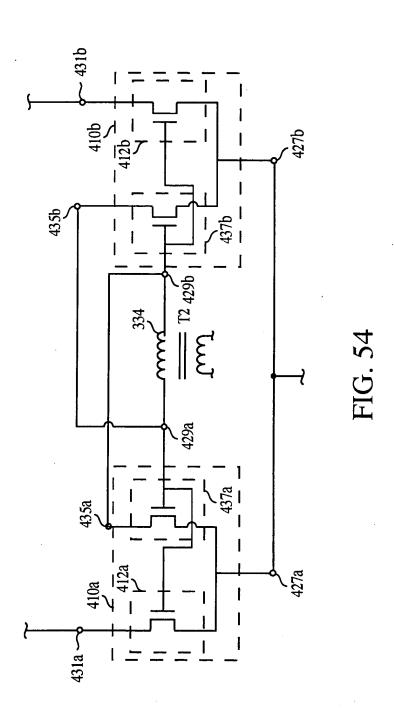
Matter No.: 00614-136003 Page 52
Applicant(s): Patrizio Vinciarelli
LOW-LOSS TRANSFORMER-COUPLED GATE DRIVER



Matter No.: 00614-136003 Page 53 of Applicant(s): Patrizio Vinciarelli LOW-LOSS TRANSFORMER-COUPLED GATE DRIVER



Matter No.: 00614-136003 Page 54 of Applicant(s): Patrizio Vinciarelli LOW-LOSS TRANSFORMER-COUPLED GATE DRIVER



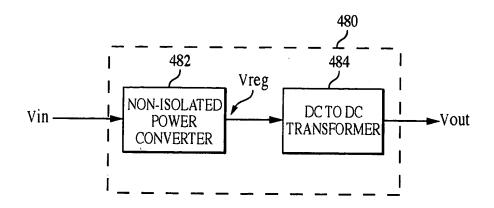


FIG. 55A

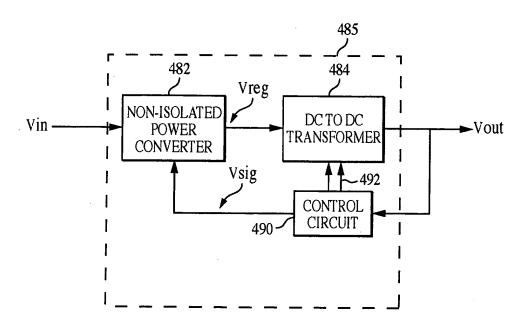


FIG. 55B

Applicant(s): Patrizio Vinciarelli

LOW-LOSS TRANSFORMER-COUPLED GATE DRIVER

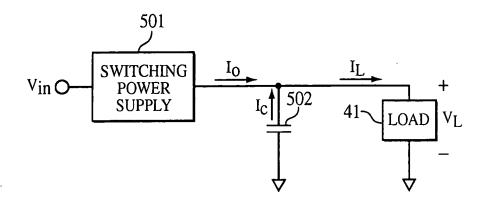


FIG. 56

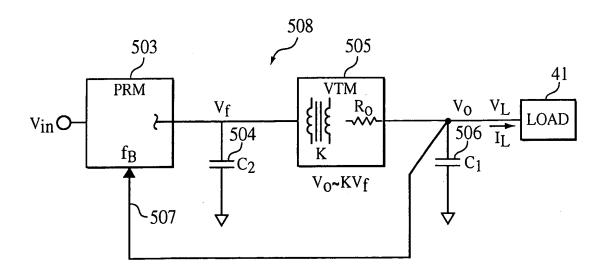


FIG. 58

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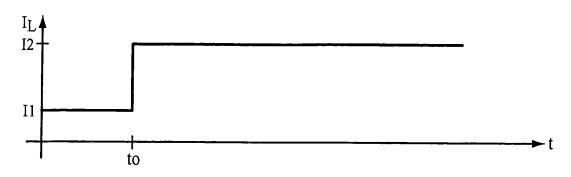


FIG. 57A

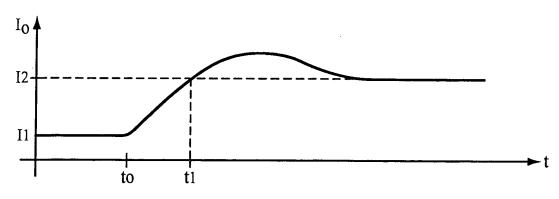


FIG. 57B

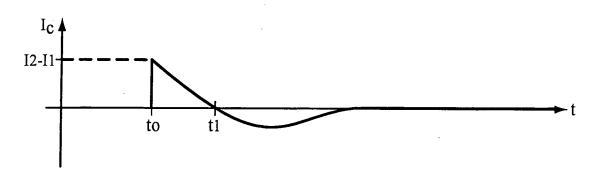


FIG. 57C

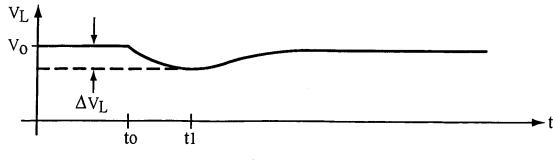


FIG. 57D

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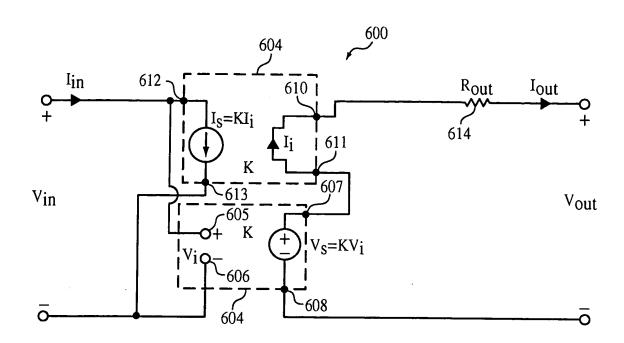


FIG. 59A

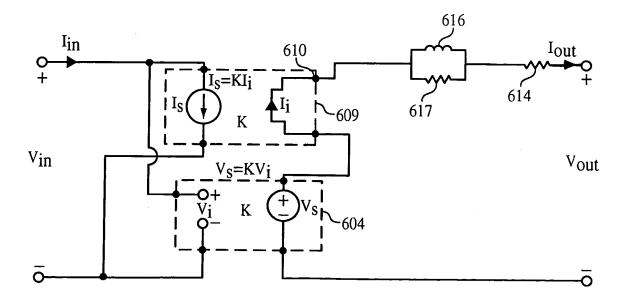


FIG. 59B

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